

Bmk. No. A-42  
Second Assistant Engineer, WJ-4742-08

#### MAJOR DUTIES

Serves as 2nd Assistant Engineer on an automated, diesel-powered, seagoing hopper dredge and is responsible for the proper and continuous operation of all engine room machinery during assigned watch. Incumbent is expected to perform all duties pertinent to the 2nd Assistant Engineer, Diesel license together with or in addition to those listed below:

1. As required, stands regularly scheduled watches in the central control monitor room of the engine room. At prescribed intervals, makes routine inspection of all engineer spaces and equipment including dredge pumps, bow thruster, steering gear, and areas. Starts, stops and adjust engine room equipment as necessary. Observes pressure and temperature gauges, and alarms, and listens for sounds which indicate abnormal operating conditions. Makes regular, periodic inspection of all operating machinery to insure proper functioning. Maintains a log of operations on assigned watch. Installs, maintains, tests and repairs AC and DC electrical systems, equipment, components, converters, safety devices, wiring, controls switchboards and consoles. Utilizes test equipment, wiring diagrams and schematics to troubleshoot and make repairs. Inspects and services pilot house and engine room controls, gyrocompass, and steering, fire detection, ventilation, refrigeration, lighting, air-conditioning, emergency and communication systems.
2. Makes routine repairs to operating machinery during assigned watch. Supervises and/or performs the operation, routine repair and maintenance of all engine room equipment and assists Chief Engineer and Assistant Chief Engineer with major repairs.
3. Supervises and reviews work of 3rd Assistant and Junior Engineers by visual inspection of main engines, auxiliary engines and appurtenant equipment, to insure proper maintenance and functioning of all equipment. Instructs supervised personnel in safe work methods and in proper utilization of all safety equipment. Incumbent performs a variety of personnel management tasks such as approving leave for short periods, participating in performance evaluations, recommending disciplinary actions, adjusts informal complaints, etc. Provides equal employment opportunity for all employees supervised regardless of race, color, religion, sex, handicap, age or national origin; affords minorities and women full consideration in employment and personnel policies and practices.

Performs other duties as assigned

#### SKILLS AND KNOWLEDGES

Must be licensed by U. S. Coast Guard for at least Second Assistant Engineer, Diesel, or motor vessels of appropriate horsepower. Must possess the ability to understand the principles of operation of an automated engine room monitoring system, the care and maintenance of that system, and operation of maintenance management system. Must be able to operate and maintain marine machinery and tools. Has a basic working skill of welding.

#### RESPONSIBILITY

Works under general supervision from oral and written instructions. Performs duties in accordance with established practices and pertinent regulations. Written instructions may be posted as to the nature and extent of repairs to be made, or concerning special precautionary measures to be taken while operating machinery. Responsible for proper and continuous operation of all engine room equipment while on watch. Work is subject to spot check. Overall performance is evaluated in terms of performance appraisal standards established by the supervisor.

#### WORKING CONDITIONS

Is exposed to abnormal heat, dirty and greasy equipment, and moving machinery. Is subject to burns by hot pipes or escaping steam. There is the constant hazard of boat traffic and in the event of collision, there is the danger of being thrown against or into moving equipment and danger of drowning if vessel takes water. Incumbent works regularly in areas where noise exceeds 80 decibels. Incumbent is exposed to the effects of paints, acids, and solvents.

#### PHYSICAL EFFORT

Incumbent is required to exert moderate to heavy physical effort in handling engine room equipment. Incumbent must possess color perception in order to perform troubleshooting and repair work on the full range of equipment.